

Amendments to the Claims

Listing of Claims:

Claims 1-11 (canceled)

Claim 12 (new): A method for low-loss and low-noise transfer of an introduction torque introduced into a transmission at a comparatively low shaft rotational speed to an output shaft of comparatively high rotational speed in a single-step epicyclic transmission with a plurality of planetary units, the method which comprises:

transferring the introduction torque via an internally straight-toothed ringwheel to a plurality of two to six planetary units fixedly mounted radially with respect to one another in a planet carrier and to an oppositely helix-toothed sun pinion of an output shaft;

rigidly connecting the straight-toothed planetary gearwheel meshing with a ringwheel and one of two oppositely helix-toothed half wheels of a double gearwheel, meshing with the sun pinion, of each planetary unit to one another on the planet shaft; and

assembling individual planetary units into bearings of the planet carrier, and thereby placing a respective second half wheel relative to the first half wheel, by way of devices for axial and/or rotational displacement, into a position of predetermined tooth carrying and load distribution between the individual planetary units and locking the second half wheel in the position.

Claim 13 (new): The method for torque transfer according to claim 12, which comprises effecting the axial and/or rotational displacement of the second half wheel successively on each of the individual planetary units.

Claim 14 (new): The method for torque transfer according to claim 12, which comprises assigning the position of the first half wheel of the double gearwheel to the second half wheel of the double gearwheel by rotating the first and second half wheels relative to one another.

Claim 15 (new): The method for torque transfer according to claim 12, which comprises assigning the position of the first half wheel of the double gearwheel to the second half wheel of the double gearwheel by axially displacing the first and second half wheels relative to one another.

Claim 16 (new): The method for torque transfer according to claim 12, which comprises, following a position assignment, connecting the second half wheel to the planet shaft and/or to the first half wheel and locking the second half wheel in that position.

Claim 17 (new): The method for torque transfer according to claim 16, which comprises non-positively connecting the second half wheel to the planet shaft and/or to the first half wheel.

Claim 18 (new): The method for torque transfer according to claim 16, which comprises positively connecting the second half wheel to the planet shaft and/or to the first half wheel.

Claim 19 (new): The method for torque transfer according to claim 12, which comprises locking the second half wheel axially resiliently with respect to the first half wheel.

Claim 20 (new): The method for torque transfer according to claim 19, which comprises utilizing cup springs as spring element.

Claim 21 (new): The method for torque transfer according to claim 12, which comprises using a toothing profile of the straight-toothed planetary gearwheel, with a tip thereof shortened, as a shaft profile for the axial guidance of one or of both half wheels by way of a corresponding inner profile on the shaft.

Claim 22 (new): The method for torque transfer according to claims 12, which comprises adjusting the second half wheel in axial direction with respect to the first half wheel by inserting adjusting plates between the first and second half wheels.

Claim 23 (new): The method for torque transfer according to claims 12, which comprises introducing the planetary units into bearing points in a divided planet carrier radially with respect to an axial direction of the planet shaft.

Claim 24 (new): A single-step epicyclic transmission for transferring a torque introduced at a relatively low rotational speed onto an input shaft to a sun pinion of an output shaft with a relatively high rotational speed, comprising:

- a planet carrier;

- a plurality of planetary units mounted radially fixed with respect to one another on said planet carrier;

- an oppositely helix-toothed double gearwheel formed with two half wheels;

- each planetary unit having a straight-toothed planetary gearwheel fixedly connected to said two half wheels, said straight-toothed planetary gearwheel meshing with a ringwheel connected fixedly to the input shaft and having an internal straight toothing;

- each planetary unit including devices configured, during mounting of individual said planetary units in said planet carrier, to orient said second half wheel, for uniform load distribution to all said planetary units, with respect to said first half wheel in an axial direction and/or by rotation about the planet shaft and to lock said second half wheel.

Claim 25 (new): The transmission according to claim 24, wherein said plurality of planetary units include two to six planetary units.